

REMARKS/ARGUMENTS

Claims 1-6, 9-14 and 20-24 are pending. Claims 4-6 stand withdrawn from consideration. Reconsideration is respectfully requested, and Applicant responds to the Final Office Action of March 2, 2006 as follows:

1. Rejection of Claims 1-3, 9-12, 14 and 24 Under §103(a)

Claims 1-3, 9-12, 14 and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,938,414 (Kayahara) in view of US Patent 3,565,554 (Muller). The Applicants respectfully traverse this rejection.

Claim 1 (as amended) recites the combination of compression means to create a moving occlusion of the compression tube with at least one rest position in which the compression means is free of all contact from the compression tube so that the compression tube is free of any occlusions, and a cylindrically shaped integrally formed flange of the compression tube that engages with a channel on the compression surface for securing the compression tube to the compression surface. Likewise, claim 11 similarly recites the combination of roller for pressing the compression tube against the compression surface to create a moving occlusion of the compression tube for pushing fluid through the compression tube, where the roller has a rest position where the roller does not contact the compression tube, and a flange extending along the length of the tube removably engaged with the channel in the compression surface for securing the compression tube to the compression surface. In contrast, Kayahara teaches roller 4 in constant contact with tube 17 (see Figs.), and Muller fails to remedy this deficiency of Kayahara. Therefore, Kayahara and Muller together fail to produce the claimed invention.

On pages 2-3 of the Final Office Action, the Examiner responds to the above argument by relying on Col. 3, lines 48-62 of Kayahara, which states “the elastic tube is freed from the normal pressing by the press roller”. The Examiner then concludes that this “allows for easy replacement of the cassette since the roller does not contact the tube.” Yet, this conclusion is not supported by the cited text from Kayahara. The entire cited text is reproduced below:

main unit. Using this single press roller, the rotational motion of the press roller along with the rotation of the rotational drive shaft causes the pressing action against the elastic tube to alternate the active and inactive modes iteratively. That is, the elastic tube is freed from the normal pressing by the press roller. As a result, the elastic tube will neither weaken in its restoring power, nor yield to fatigue deterioration. Also, the liquid cassette can be fitted and removed during the inactive mode of the press roller, so that the liquid cassette can be fitted and removed simply and reliably. Moreover, even when a need arises to feed some other kind of liquid during the feeding operation of a first kind of liquid, this can be achieved by replacing the liquid cassette with the press roller located in the inactive-mode position.

This text does state fitting and removing the cassette is eased in the inactive mode, but there is no teaching or suggestion that there is no contact between the roller and the tube in the inactive mode. At best, pressure is eased (to prevent weakening and fatigue), but there is no support in either the cited text or the figures for the Examiner's conclusion that "the roller does not contact the tube". For this reason, the Applicants respectfully submit the rejection of claims 1 and 11 (and claims dependent thereon) is erroneous.

Moreover, the Applicants respectfully traverse the finding that it would have been obvious to combine the rib 9 of Muller with the apparatus of Kayahara, given that the Kayahara apparatus has connecting portion 28 and ring portion 29 already holding the tube ends in place, as opposed to the Muller device which is shown simply as an open semicircle with nothing else apparently holding the tube in place. Therefore, one skilled in the art would not be motivated to modify the Kayahara apparatus as suggested by the Examiner.

On page 3 of the Final Office Action, the Examiner responds to this point by stating "While the connecting portion 28 and ring portion 29 hold the tube ends in place, they do not necessarily ensure that the intermediate tube portion stays in place." Again, the Applicants can find so support for this apparent speculation about the Kayahara device. Col. 6, lines 47+

introduce portions 28/29, with no suggestion that they “do not necessarily ensure” intermediate tube position staying in place:

two casing members together. In order to make up the liquid cassette 3 with the liquid cartridge 20 accommodated into the two casing members 26, 27, a connecting portion 28
50 between the elastic tube 17 and the reservoir 18 as well as a mouth ring portion 29 that connects the elastic tube 17 and the check valve 19 with each other are joined together as they are pinched by the two casing members 26, 27. This arrangement allows the connection of the elastic tube 17
55 with the reservoir 18 and the check valve 19 to be securely attained, so that the liquid reagent can be prevented from leaking through the two connecting portions of the elastic tube 17, and that the occurrence of air inflow through the two connecting portions can be prevented securely. Furthermore,
60 the elastic tube 17 can also be effectively prevented from separating off, for example, by de-coupling at the two connecting portions.

In fact, this language talks about how this arrangement (which includes connecting portion 28 and mouth ring portion 29) “allows the connection of the elastic tube 17 with the reservoir 18 and the check valve 19 to be securely attained...” Therefore, the Applicants respectfully submit that there is insufficient motivation to combine the rib 9 of Muller with the apparatus of Kayahara.

For these reasons, it is respectfully submitted that the rejections of claims 1-3, 9-12, 14 and 24 should be withdrawn.

2. Rejection of Claim 13 Under §103(a)

Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kayahara in view of Muller, and further in view of US Patent 2,693,766 (Seyler). The Applicants respectfully traverse this rejection. Claim 13 depends from claim 11, which is considered allowable for the reasons set forth above in Part 1. The addition of Seyler fails to remedy the shortcomings of Kayahara and Muller.

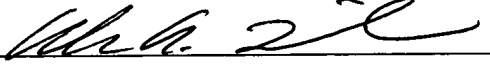
3. Allowable Subject Matter

The Applicants gratefully acknowledge the allowance of claims 21-23.

For the foregoing reasons, it is respectfully submitted that the claims are in an allowable form, and action to that end is respectfully requested.

Respectfully submitted,

DLA PIPER RUDNICK GRAY CARY US LLP

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Alan A. Limbach
Reg. No. 39,749

Attorneys for Applicant(s)

Alan A. Limbach
DLA Piper Rudnick Gray Cary US LLP
2000 University Avenue
East Palo Alto, CA 94303-2248
650-833-2433 (Direct)
650-833-2000 (Main)
650-833-2001 (Facsimile)
alan.limbach@dlapiper.com

Customer No. 26379